

Figure S1. (A) Photograph and fluorescence spectra of CQDs with different concentrations of Fe³⁺. (B) The variation relationship between different concentrations of Fe³⁺ and fluorescence intensity at 440 nm.

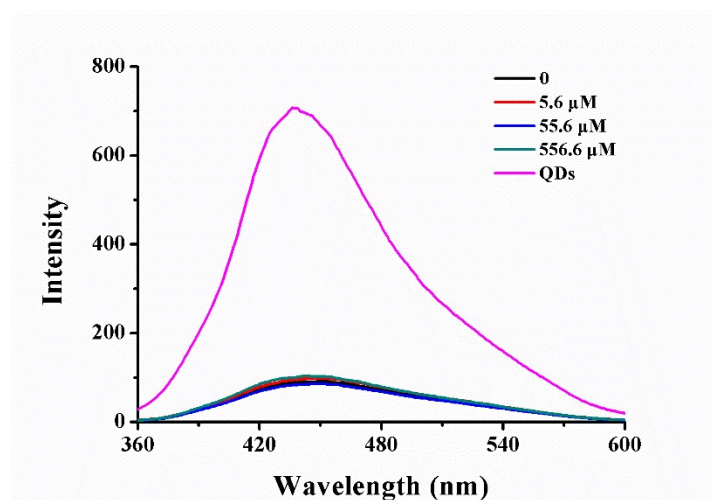


Figure S2. Fluorescence spectra of CQDs-Fe³⁺ system with different concentrations of gentamicin (0, 5.6 μM , 55.6 μM and 556.6 μM). And pink line was fluorescence spectrum of CQDs as a comparison.

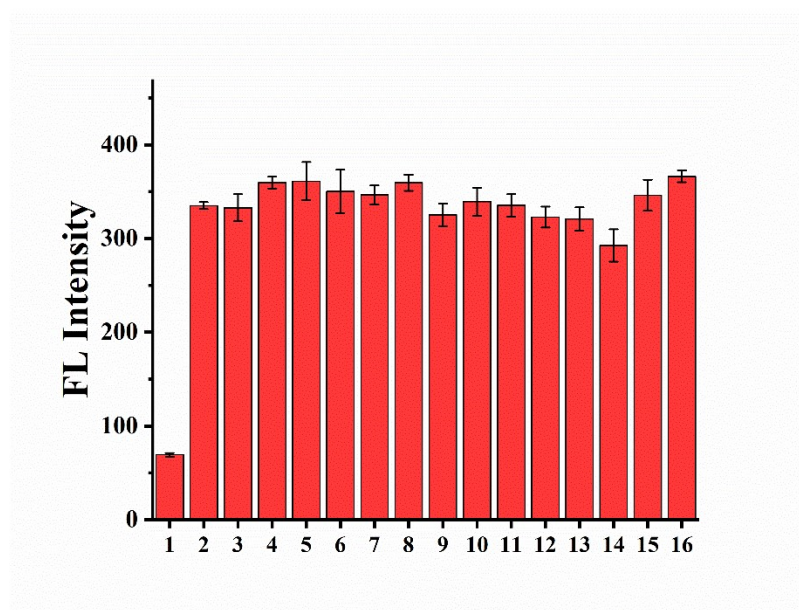


Figure S3. Anti-interference capability of CQDs-AuNPs system for gentamicin. 1 was FL intensity of CQDs-AuNPs system. 2-15 were amoxicillin, erythromycin, clarithromycin, ampicillin, penicillin, roxithromycin, norfloxacin, ofloxacin, thiamphenicol, clindamycin, trimethoprim, sulfapyridine, tetracycline, cefodizime sodium mixed with gentamicin. 16 was gentamicin. The concentrations of norfloxacin, ofloxacin, and methotrexate were 5 μ M. The concentration of clindamycin was 1 μ M. The concentration of gentamicin was 200 nM. The other antibiotic concentrations were 50 μ M.



Figure S4. Colorimetric photograph of after the addition of various concentrations of gentamicin in watermelon juice samples. The final concentrations of 1-8 respectively were 0, 0.56 nM, 2.80 nM, 5.56 nM, 27.80 nM, 55.56 nM, 555.56 nM and 5.56 μ M.

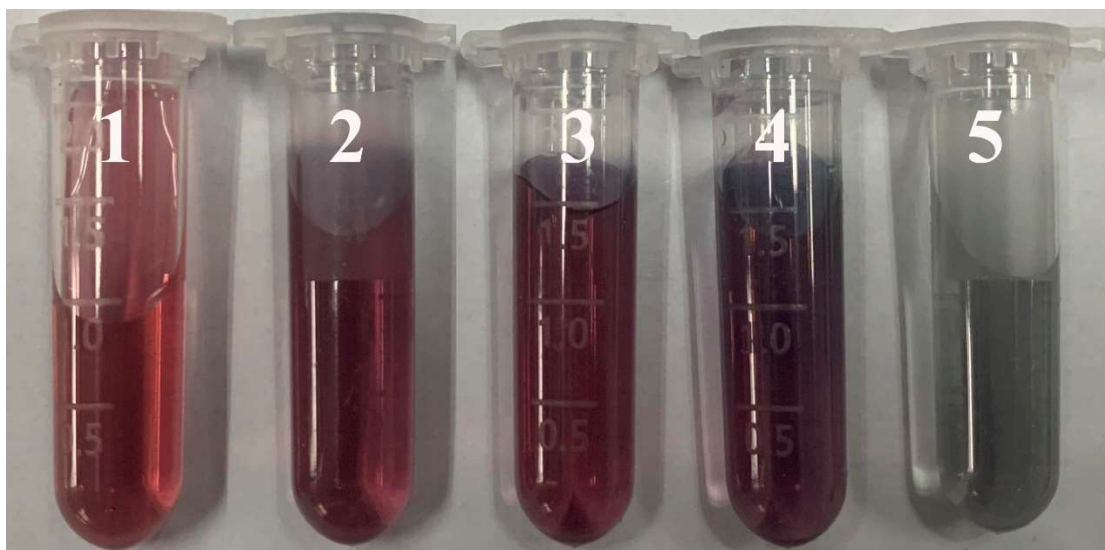


Figure S5. Colorimetric photograph of after the addition of various concentrations of gentamicin in cucumber juice samples. The final concentrations of 1-5 respectively were 0, 0.56 nM, 5.56 nM, 55.56 nM and 555.56 nM.